

**Appendix B-2**  
**SAP Field Log Book**

6/3/10

WED

TRANSITE PIPE SCALE

08:00 Meet at Weed Hts office for safety & project planning meeting

Personnel: Penny Bassett (BC)

Roe Souther (BC)

Matt Arno (Foxfire)

Jay Gatlin (Desert Eng.)

Weather: Sunny, calm in a.m., may be moderately windy in p.m., forecast high ~ 74° F.

Met w/ Tom Dunkleman in a.m. to discuss plan. He would like to observe sampling as much as possible.

Plan: Jay (DE) + Roe will work separately to begin opening pipe sections by using backhoe bucket, spreader bar, lifting straps. ~ 8 location to open pipe. Penny + Matt will begin doing rad survey + scale samples in Area 1. Need ~ 500 g sample for Rad analysis, where possible we will collect another 500 - 1000 g sample for MWMP testing.

PB

6/2/10

19

1010

Location S-1

Perimeter radiation survey exposure rate 15-17  $\mu\text{R}/\text{hr}$ ; 60 sec count is 3536. Pipe interior 14-16  $\mu\text{R}/\text{hr}$ , 60 sec. count: 3230. Samples for radiocarbon and MWMP analysis collected. Sample media consists of a combination of scale and white/light grayish fine sediment (sandy). Sediment approx. 4" thick in bottom of pipe. Scale < 1/4" thick only covering half of interior. Pipe is approx. 18" ID with green lining. Samples collected at 1010 (1 small bag for radiocarbon and two large bags for MWMP). Perimeter count performed approx. 8 feet E of pipe.

APL 6/2/10

6/2/10

1040 Location **S-2**

Pipe interior rad survey 14-16  $\mu\text{R}/\text{hr}$ ,  
 60 sec count: 3127. Perimeter survey  
~~17-18  $\mu\text{R}/\text{hr}$~~ , 60 sec. count: 4158. Perimeter  
 count performed approx 6 feet W of pipe  
 end. perimeter survey 17-19  $\mu\text{R}/\text{hr}$  at  
 count location. Pipe approx 8" ID unlined  
 except at joint. Sample consists of  
 white/light-colored scale and degraded  
 pipe material. Scale was moderately  
 adhered to entire pipe interior and  
 was removed with moderate effort.  
 Sample collected at 1043. One sample  
 for radiochem analysis collected.  
 Scale thickness < 1/8".

056 Location **S-3**

Pipe interior 13-15  $\mu\text{R}/\text{hr}$ , 60 second  
 count: 3000. Perimeter survey 15-17  $\mu\text{R}/\text{hr}$ ,  
 60 sec. count: 3681. Pipe approx. 8" ID,  
 scale is yellowish and firmly adhered,  
 approx. 1/8" thick, coats entire surface.  
 pipe is lined. Pipe has similar material  
 to scale on pipe exterior. Sample  
 collected at 1100. One sample for  
 radiochem analysis collected.

QND 6/2/10

6/2/10

1109 Location **S-4**

Pipe interior rad survey 12-14  $\mu\text{R}/\text{hr}$ , 60  
 second count: 3016. Perimeter survey  
 15-17  $\mu\text{R}/\text{hr}$ , 60 sec. count: 3705.  
 Pipe approx 12" ID, unlined. Sample is  
 silt/sandy fine light-gray sediment.  
 Sediment is disturbed approx 1"  
 thick on bottom of pipe. Sample collected  
 at 1116. One sample for radiochem  
 analysis collected. Perimeter count 5 ft.  
 W of pipe.

1122 Location **S-5**

Pipe interior rad survey 10-12  $\mu\text{R}/\text{hr}$ , 60  
 sec. count: 2547. Perimeter survey 17-19  
 $\mu\text{R}/\text{hr}$  approx 4 ft N. of pipe, 60  
 sec. count 3886. Sample wetted with  
 "Penewet" Pipe approx 8" ID unlined.  
 Sample consists of white/light-colored scale  
 and degraded pipe wall. Scale adhered  
 to entire pipe interior, removed with  
 moderate effort. Sample collected at 1132.  
 One sample for radiochem analysis collected.  
 Scale thickness approx 1/8".

QND 6/2/10

6/2/10

1137 Location **S-6**

Pipe interior rad survey 195-210  $\mu\text{R}/\text{hr}$ , 60 sec. count 43469. Perimeter survey 26-28  $\mu\text{R}/\text{hr}$ , 60 sec count: 5427, taken approx 6 ft. N of pipe. Pipe approx. 8" ID, lined,  $1/4$ " thick scale evenly adhered. Scale is chalky and low density, loosely adhered on entire circumference, white/light gray. Rad sample collected at marked location. MWMP sample collected at opposite end of pipe. Samples collected at 1143.

1150 Break for lunch

1250 Return from lunch

1253 Location **S-7**

Pipe interior rad survey 14-16  $\mu\text{R}/\text{hr}$ , 60 sec count: 2976. Perimeter survey 14-16  $\mu\text{R}/\text{hr}$ , 60 sec count: 3568 at fence. Pipe approx 12" ID unlined. Scale <  $1/8$ " adhered evenly to pipe wall. Sample includes degraded pipe wall. Sample collected at 1300. Scale is reddish brown. Majority of sample is pipe wall. One sample for rads collected.

AMA 6/2/10

6/2/10

Sample location may not be a piece of the continuous run in this area, may not be representative.

1310 Location **S-8 (a & b)**

Pipe "a" interior rad survey 12-14  $\mu\text{R}/\text{hr}$ , 60 sec. count: 2810 Pipe "b" interior rad survey 13-15  $\mu\text{R}/\text{hr}$ , 60 sec count: 3128. "a" is pipe by fence, "b" pipe by road. Perimeter survey by fence 15-17  $\mu\text{R}/\text{hr}$ , 60 sec count: 3641. Insufficient material in either pipe to sample. Pipes are approx 12" ID, lined.

1320 Location **S-9 (a & b)**

Pipe "b" interior rad survey 12-14  $\mu\text{R}/\text{hr}$ , 60 sec count: 2990. Pipe "a" interior rad survey 14-15  $\mu\text{R}/\text{hr}$ , 60 sec count: 3132. Perimeter survey approx 6 ft. N of "a", 18-20  $\mu\text{R}/\text{hr}$ , 60 sec count: 3933. Insufficient material in either pipe to sample.

AMA 6/2/10

24

6/2/10

1335 Location S-10 (a & b)

Pipe "a" interior rad survey 14-16  $\mu\text{R}/\text{hr}$ ,  
 60 sec count 3337. Pipe "b" interior rad  
 survey 15-17  $\mu\text{R}/\text{hr}$ , 60 sec count: 4053  
 Perimeter survey 16-17  $\mu\text{R}/\text{hr}$ , 60 sec  
 count: 3859 measured under string "a"  
 location prior to disarticulation. String  
 "a" further from road. Sample "a" collected  
 at 1339, approx  $\frac{1}{16}$ " thick uniformly adhered  
 to pipe lining, loose debris along bottom,  
 rad sample collected, scale is yellowish-  
 white. Sample "b" darker yellow-brown  
 material only accumulated on bottom of  
 pipe, collected at 1345.

1356 Location S-11

Pipe interior rad survey 15-16  $\mu\text{R}/\text{hr}$ ,  
 60 sec. count: 3458 Perimeter survey  
 15-17  $\mu\text{R}/\text{hr}$  approx. 4 ft S. of pipe,  
 60 sec count: 3491. Sample consists of  
 low-density fibrous material, light tan,  
 accumulation at joint only, appears to  
 be eroded asbestos cement pipe buildup.  
 Remainder of pipe, 12" ID lined pipe.  
 Lining is significantly deteriorated at  
 joint.

and 6/2/10

25

6/2/10

Samples collected at 1400. One rad  
 sample collected. Sample is from  
 single pipe section, origin unknown (3  
 possible pipe strings)

## 1417 Location HA-2-03

Pipe interior rad survey 16-18  $\mu\text{R}/\text{hr}$   
 60 sec count: 3637. Perimeter survey  
 22-24  $\mu\text{R}/\text{hr}$ , 60 sec count 5249.  
 taken in center of precipitation  
 pending area.

1446 Location S-14

Pipe interior rad survey 18-20  $\mu\text{R}/\text{hr}$ ,  
 60 sec count: 4253 Perimeter survey  
 20-22  $\mu\text{R}/\text{hr}$ , 60 sec count 4891 taken  
 approx. 4 ft. W of pipe.

1454 Location S-15

Pipe interior rad survey 14-15  $\mu\text{R}/\text{hr}$ ,  
 60 sec. count: 3305. Perimeter survey  
 19-21  $\mu\text{R}/\text{hr}$ , 60 sec count: 4391 approx  
 3 ft E of pipe.

and 6/2/10

6/2/10

1508 Location S-13

Pipe interior rad survey 17-19  $\mu\text{R}/\text{hr}$ ,  
 60 sec count: 3941. Perimeter survey  
 18-20  $\mu\text{R}/\text{hr}$ , 60 sec count: 4399.  
 Insufficient material to sample.

## 1520-1540 Sulfide tails tour

1541 Location S-12 (a & b)

Pipe "a" interior rad survey 16-18  $\mu\text{R}/\text{hr}$ ,  
 60 sec count: 3252. Pipe "b" interior  
 rad survey 16-18  $\mu\text{R}/\text{hr}$ , 60 sec count:  
 3607. Perimeter rad survey approx.  
 4 ft S. of pipes 19-21  $\mu\text{R}/\text{hr}$ , 60 sec  
 count: 4308 4778

1625 Location S-15 sampling

Sediment in pipe bottom localized at  
 joints. Appears to be degraded transite  
 material. Pipe approx. 12" ID, lined,  
 significant liner degradation at joints.  
 Sample collected at 1630. Rad sample  
 and duplicate (S-DUP1) collected  
 as field split

6/2/10

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1640 Location S-14 sampling

No sample collected w/ EPA  
 concurrence.

1648 Location S-13 sampling

Loose white scale in bottom of pipe  
 sampled. Pipe approx. 8" ID, lined.  
 Sample collected at 1650, one  
 sample for rads.

1700 Location S-12 sampling

Pipe "a" sampled. Fine brown sediment  
 approx  $\frac{1}{4}$ " thick in bottom of pipe.  
 Pipe is approx. 12" ID, lined. Rad  
 sample collected at 1702. Pipe "b"  
 contains sediment consisting of degraded  
 transite. Pipe "a" MNMP sample  
 collected.

1730 Equipment rinse sample S-EB-1  
collected.

 written out 6/2/10

**6/3/10**

0820 Arrive on site, collect supplies

0845 Location **S-27**

Pipe interior rad survey 17-19  $\mu\text{R}/\text{hr}$ , 60 sec. count: 3956 Perimeter survey 17-19  $\mu\text{R}/\text{hr}$ , 60 sec count: 3899, measurement taken approx. 3 ft. N of pipe. Pipe approx. 12" ID, lined, limited sediment accumulation in bottom of pipe. Sediment is white, fine-grained. Sample collected at 0854

0915 Location **S-28**

Pipe interior rad survey 14-16  $\mu\text{R}/\text{hr}$ , 60 sec count: 3330. Perimeter survey taken underneath elevated (approx. 5 ft.) pipe end, 17-19  $\mu\text{R}/\text{hr}$ , 60 sec count: 3969. No material present to be sampled.

0930 Location **S-15** MWMP sample

Sample composited from both ends of removed pipe joint and additional disarticulated joint five joints to the N. Sample collected at 0935

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6/3/10

0945 Location **S-29**

Pipe interior rad survey 13-15  $\mu\text{R}/\text{hr}$ , 60 sec count: 3327. Perimeter survey 16-18  $\mu\text{R}/\text{hr}$ , 60 sec count: 3857. taken approx. 5 ft S of pipe. Pipe is approx 18" ID, unlined. Debris in pipe is medium gray and appears to be primarily degraded pipe wall. Sample collected to 0950.

1000 Location **S-21**

Pipe interior rad survey 19-21  $\mu\text{R}/\text{hr}$ , 60 sec count: 4310. Perimeter survey taken along berm on W side of pipe, 18-20  $\mu\text{R}/\text{hr}$ , 60 sec count: 4158. Pipe approx 8" ID, lined. Sediment in pipe is fine light-grained tan material. One sample for rads collected. Sample taken at 1007.

MAR 6/3/10

6/3/10

## 1020 Location S-25

Pipe interior rad survey 17-19  $\mu\text{R}/\text{hr}$ , 60 sec count: 4183. Perimeter survey approx. 6 ft S of pipe 25-28  $\mu\text{R}/\text{hr}$  60 sec count: 5385. Pipe is wrapped metal approx 12" ID half full of light brown sediment. Rad and MW/MP samples collected at 1025.

## 1030 Location S-26

Pipe interior rad survey 14-16  $\mu\text{R}/\text{hr}$ , 60 sec count: 3703. Perimeter survey 24-26  $\mu\text{R}/\text{hr}$ , 60 sec count: 5589. Pipe is wrapped metal approx. 12" ID,  $1/3$  full of light brown sediment. Rad and rad dup (S-DUP-2) collected at 1035.

## 1100 Location S-22

Pipe interior 14-15  $\mu\text{R}/\text{hr}$ , 60 sec count: 3188. Perimeter survey 16-18  $\mu\text{R}/\text{hr}$  60 sec count: 4127. Pipe approx. 12" ID, unlined. Sediment is predominantly VLT with coarse sand, pipe is half

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6/3/10

full. Sample collected at 1100. VLT appears to have flowed through pipe. One rad sample collected.

## 1115 Location S-23

Pipe interior rad survey 19-21  $\mu\text{R}/\text{hr}$ , 60 sec count: 4638. Perimeter Survey, 40-42  $\mu\text{R}/\text{hr}$ , 60 sec count: 8641. Pipe approx 18" ID unlined, contains yellow scale mixed with degraded transite evenly coating pipe interior. One rad sample collected at 1122.

## 1125 Location S-24

Pipe interior rad survey 24-26  $\mu\text{R}/\text{hr}$ , 60 sec count: 5534. Perimeter survey 28-30  $\mu\text{R}/\text{hr}$ , 60 sec count: 7021. Pipe approx 18" ID, unlined, contains yellow scale mixed with degraded transite with red tint, pipe wall evenly coated with loose debris on bottom of pipe. Rad and MW/MP samples collected at 1132.

## 1145 Break for lunch

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6/3/10

1315

Location 5-18

Pipe interior  $17-19 \mu\text{R}/\text{hr}$ , 60 sec counts 4028. Perimeter survey  $22-24 \mu\text{R}/\text{hr}$ , 60 sec count: 5096 taken approx. 4 ft W of pipe. Pipe approx 12" ID

containing white blue-tinted scale and sediment with brown degraded transite and white/blue degraded transite. One rad sample collected at 1330

1335 Location 5-16

Pipe interior  $27-29 \mu\text{R}/\text{hr}$ , 60 sec count: 6157. Perimeter survey  $37-41 \mu\text{R}/\text{hr}$ , 60 sec count: 8069 taken 3 ft N of pipe. Pipe approx 8" ID, unlined, white scale, partially adhered to entire pipe circumference. One rad sample collected at 1340.

1345 Location 5-17

Pipe interior  $600-620 \mu\text{R}/\text{hr}$ , 60 sec count: 129387. Pipe perimeter survey  $250-260 \mu\text{R}/\text{hr}$ , 60 sec count 54336. Pipe approx 12" ID, unlined, bluish-

ing 6/3/10

6/3/10

white degraded transite  $> \frac{1}{2}$ " thick, no distinguishable scale. Rad and duplicate (S-DUP-3) collected at 1352.

1405 Location 5-19 (HA-4-02)

Pipe interior  $1600 \mu\text{R}/\text{hr}$ 

60 sec count: 329629

Perimeter survey  $2400 \mu\text{R}/\text{hr}$ 

60 sec count: 497572

entry into RCA by Penny: 1408

RCA dose rates in areas occupied by Penny: 0.7 to 2 mR/hr.

Pipe approx 12" ID, unlined, contains white scale and degraded transite with red tinge. One sample for rad at 1415

1420 Location 5-20 (HA-4-01)

Pipe interior  $250-260 \mu\text{R}/\text{hr}$ 

60 sec count: 51519

Perimeter survey  $180-190 \mu\text{R}/\text{hr}$ 

60 sec count: 37853

Pipe and scale same as 5-19

Sample collected at 1423 (0% for rad)  
and 6/3/10 (approx 100%)